State of California
Regional Water Quality Control Board
San Diego Region

EXECUTIVE OFFICER SUMMARY REPORT
November 10, 2004

ITEM: 5

SUBJECT: NPDES PERMIT REVISION: WASTE DISCHARGE REQUIREMENTS FOR U.S. NAVAL BASE SAN DIEGO SAN DIEGO COUNTY (TENTATIVE ADDENDUM NO. 1 TO ORDER NO. R9-2002-0169, NPDES PERMIT NO. CA0109169) (John R. Phillips)

PURPOSE: To consider adoption of tentative Addendum No. 1 to Order No. R9-2002-0169 (NPDES Permit No. CA0109169) that would modify the Waste Discharge Requirements and the Monitoring and Reporting Program (MRP) for Naval Base San Diego (NBSD).

PUBLIC NOTICE: The NPDES permit hearing notice was published in the San Diego Union-Tribune on October 8, 2004. Copies of the tentative Addendum were mailed on October 8, 2004 to the discharger and to all known interested parties and agencies. Copies were made available for public review at the Regional Board office on October 8, 2004.

These actions served as the 30-day official public notification for this action, as required by Title 40, Section 124.10 of the Code of Federal Regulations.

DISCUSSION: By letter dated August 31, 2004, the U.S. Navy requested the Regional Board to revise Order No. R9-2002-0169 to allow the use of storm water runoff treatment as an alternative to diverting the first ¼ inch of storm water runoff from the *Naval Regional Recycling Center* (NRRC), one of a number of high-risk areas (defined below) at Naval Base San Diego (NBSD). The proposed treatment system will treat a greater volume of runoff than would otherwise be diverted. Order No. R9-2002-0169 requires diversion of the first ¼ inch of storm water runoff from all high-risk industrial areas. Diversion of storm water runoff generally requires storage of the runoff and later a controlled discharge to the sanitary sewer through an agreement with the sewering agency. The diversion of runoff at all high-risk areas at NBSD must be completed by November 13, 2004. The development and implementation of storm water treatment technologies is necessary because diversion of storm water to the sanitary sewer system may not be available in the future.

The Navy has reported that it will divert the first ¼ inch of rain at all other high-risk areas at NBSD by November 13.

This tentative Addendum modifies Order No. R9-2002-0169 and Monitoring and Reporting Program (MRP) No. R9-2002-0169 by adding language to the requirements that allows the use of storm water treatment as an alternative to diverting the first ¼ inch of runoff. The discharger is will also be required to monitor the discharges from the storm water treatment systems pursuant to Monitoring and Reporting Program No. R9-2002-0169. The tentative Addendum does not limit the use of treatment technology to the area of the NRRC. The Navy may propose storm water treatment for other high-risk industrial areas and will be required to provide 60-day notification to the Regional Board prior to installing any additional treatment systems at Naval Base San Diego.

The October 8 version of the tentative Addendum did not contain language that was clear about the monitor requirements for discharges from storm water treatment systems and the requirement to provide written notification to the Regional Board. The tentative Addendum has been revised to include the monitoring and reporting requirements described above. Supporting Document No. 2 includes the revised language. The added language is shown by underline and the deleted language is shown by strikeout.

High-risk areas are defined as areas where wastes or pollutants (including abrasive blast grit material, primer, paint, paint chips, solvents, oils, fuels, sludges, detergents, cleaners, hazardous substances, toxic pollutants, non-conventional pollutants, materials of petroleum origin, or other substances of water quality significance) are subject to exposure to precipitation and runoff.

In areas such as San Diego that experience sporadic rainfall, the first discharge of storm water runoff after a dry period generally contains the highest concentration of pollutants. The pollutants accumulate during extended periods of dry weather and are carried into receiving waters during storm events. Diversion of the first ¼ inch of runoff is considered an acceptable best management practice to reduce the discharge of pollutants in storm water runoff. Diversion of a specific level of rainfall does not eliminate 100% of the pollutants found in storm water runoff (only 100% diversion would) since pollutants are still present in any storm water discharge that occurs during and after the storm event.

The U.S. Navy has developed a treatment system that is expected to produce an effluent that will comply with the requirements of Order No. R9-2002-0169. The treatment system utilizes filtration and adsorption to remove metals and produce an effluent that may comply with the toxicity

performance standard. The monitoring results for metals for the proposed treatment system are shown in Attachment No. 3. The Navy will be conducting monitoring for metals and toxicity on the treated storm water runoff during this rainy season to confirm that the effluent will meet the requirements of the Order. The effluent from the treatment system will be discharge to San Diego Bay.

The Navy proposes to install this treatment system to treat up to 42,000 gallons of storm water runoff from one high-risk industrial area, the NRRC. The NRRC is a 3.55-acre area facility. The treatment system is designed to treat the runoff resulting from 0.56 inches of rain in a three-hour period. The total runoff is expected to be about 42,000 gallons. Diversion of the first ¼ inch would prevent about one-half of the design flow (21,000 gallons) being discharged to the Bay while this treatment system will treat up to 42,000 gallons of the storm water runoff.

The treatment system consists of three layers of media: a layer of sand and gravel; a layer of 'bone char' (calcined crushed cattle bones, mainly calcium and tri-calcium phosphate); and a layer of iron-coated activated alumina. The Navy would like to conduct full-scale testing of the treatment system during the upcoming rainy season. The effluent from the treatment system will be discharged to San Diego Bay during the full-scale testing. Order No. 2002-0169 does not prohibit the discharge of storm water that complies with the requirements for toxicity and metals.

Bench-scale tests of the proposed treatment technology have demonstrated that the treatment will reduce pollutants, particularly metals, in storm water runoff and that the effluent will comply with the requirements of the Order, particularly the requirements for toxicity and metals. The toxicity requirement for storm water discharges is currently a 'performance goal.' The toxicity requirement becomes an enforceable effluent limitation on November 13, 2006.

The Navy has committed to storm water runoff diversion from the first ¼ inch of rain if the full scale testing of the treatment system demonstrates that the effluent will not comply with the requirements of the Order.

KEY ISSUES: Storm water discharges from the NRRC to San Diego Bay may not comply with the toxicity performance goal (96-hour effects test).

LEGAL CONCERNS: None.

SUPPORTING DOCUMENTS:

1. Location map and vicinity map.
2. Tentative Addendum No. 1 to Order No. R9-2002-0169.
3. Order No. R9-2002-0169 and MRP No. R9-2002-0169
4. Attachment No. 1, Metals Monitoring data
5. Transmittal Letter dated October 8, 2004.
6. Letter dated August 31, 2004 from the U.S. Navy
7. Affidavit of Publication for public notice dated October 8, 2004.

COMPLIANCE RECORD: According to information provided by the State Board, the U.S. Navy has not paid its current annual fee for this facility. The Navy was invoiced $14,585 for this facility. The State Board sent the Navy a *Demand Letter* on March 30, 2004, and sent a *Notice of Violation* (NOV) on May 27, 2004. According to State Board records, as of October 7, 2004 the past due fees have not been paid.

The Navy has informed the Regional Board that all or part of the annual fees for this facility will be paid.

RECOMMENDATION: Adopt tentative Addendum No. 1 to Order No. R9-2002-0169.